

# BookletChart™

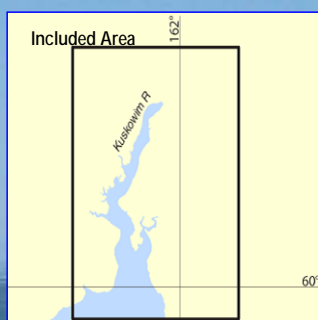


## **Kuskokwim River – Kuskokwim Bay to Bethel**

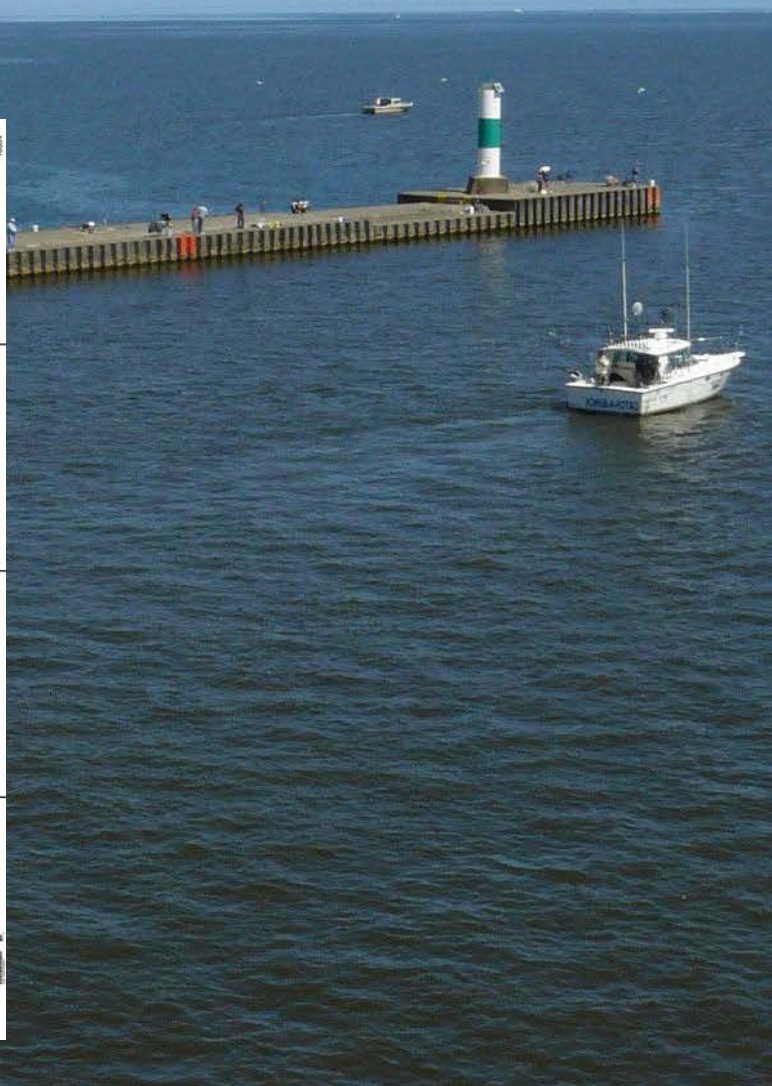
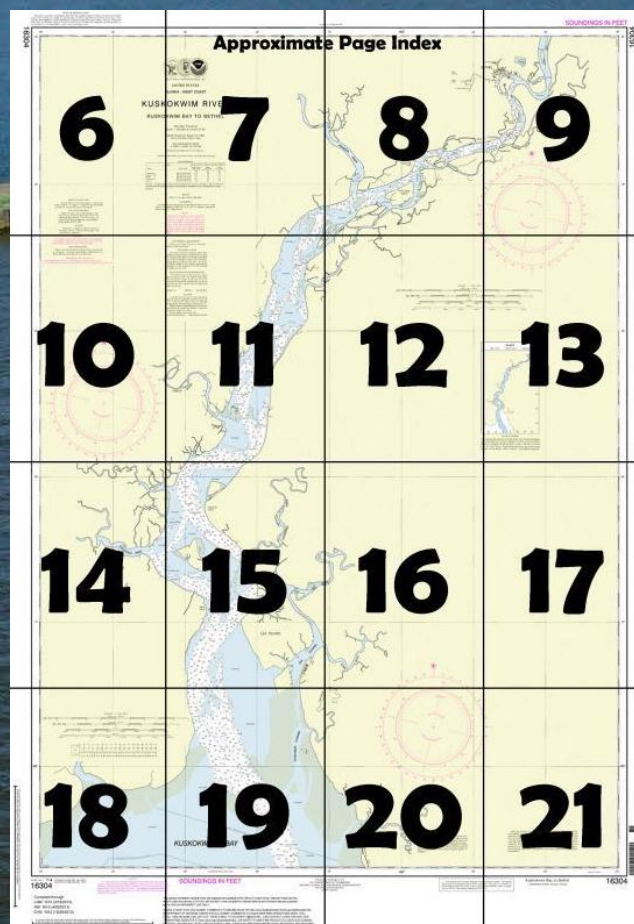
**NOAA Chart 16304**

*A reduced-scale NOAA nautical chart for small boaters*

*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

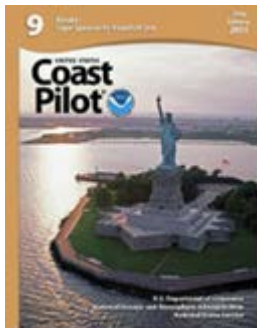
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at [http://www.nauticalcharts.noaa.gov/nsd/coastpilot\\_w.php?book=9](http://www.nauticalcharts.noaa.gov/nsd/coastpilot_w.php?book=9).



**(Selected Excerpts from Coast Pilot)**  
**Kuskokwim Bay and Kuskokwim River** open into the Bering Sea N of the entrance to Bristol Bay. The bay, filled with many flats, and hard steep-to shoals, is entered between Cape Newenham and **Cape Avinof**, 93 miles NW.

The channels through the bay are not always apparent by the surface indications of the water. At times the channels will be smooth with rips on the shoals, and at other times the reverse will be true. The

edges of the channels are often marked by long lines of foam, but occasionally the foam extends across the channels; it is well to approach these lines with caution. Navigation is recommended only at low water, when the mudflats are visible, enabling the channels between them to

be followed. Because of the inequality of the tides, a vessel grounding at high water may not be refloated for several days.

The 40-mile approach through **Eek Channel** to Kuskokwim River is a maze of shifting sandbars, both visible and covered, and blind channels. The channels in the bay and river undergo constant change from year to year, because of the action of the sea, currents, and ice; extreme caution and continuous soundings are necessary.

The procedure usually followed is for a small pilot boat from Goodnews Bay to precede the vessel through these waters, constantly feeling out the channels and sounding.

During S storms a heavy sea makes up the bay nearly to Eek Island, at the head of the bay, and vessels caught on a shoal are in danger of breaking up.

The channel through Kuskokwim Bay and up Kuskokwim River to Bethel is marked by seasonal buoys. The markers above Kuskokwim River Buoy 12 are oil drums that are set to mark the best water. The deepest draft that should attempt to reach Bethel is about 15 feet.

**Caution.**—In 1983, the Coast Guard reported that as a result of flooding in the area, about 20 ocean shipping containers were washed into the Kuskokwim River from the riverbank at the village of Napakiak, about 12 miles SW of Bethel. Reports indicate that several of the containers sank in the river near the village, and the remainder of the containers were carried downriver and sank. Mariners are advised to exercise caution in navigating Kuskokwim Bay and River.

**Cape Newenham** is the landfall for this region, and can be approached close-to with deep water. It is the end of a peninsula formed by a series of rough sawtoothed mountains. These mountains terminate in a level plateau that forms the immediate cape. In S weather a heavy sea and tide rips occur off Cape Newenham. In 1981, during heavy N winds, the NOAA Ship MILLER FREEMAN found a good anchorage in a small cove on the S side of the cape about 0.4 mile offshore S of Jagged Mountain in 10 fathoms, sand and mud bottom. Satisfactory anchorage for S or E weather can be had in about 8 fathoms off the small cove on the N side of the cape and about 3.5 miles from its outer end. An aero radiobeacon (58°39.4'N., 162°04.4'W.) is shown from the N side about 3 miles E from the outer end of the cape. About 1.3 miles ESE of the aero radiobeacon is a parabolic antenna.

Cape Newenham is an important resting area (haulout) for Pacific walrus and nesting area for seabirds. Operating a watercraft in a manner which results in disturbing, harassing, herding, hazing or driving of walrus is prohibited under provisions of the Marine Mammal Protection Act. To ensure that walrus are not disturbed, marine vessel operators are requested to avoid transiting or anchoring within 0.5 mile of the Cape Newenham walrus haulout.

**Security Cove**, 9 miles ENE of Cape Newenham, is a good anchorage except with NW winds; the usual summer gales are SE. The bottom is even and shoals gradually. The best anchorage in 3½ fathoms, mud bottom, is about 0.8 mile NE of Castle Rock and on the range of Castle Rock and the first promontory SW. Water can be obtained from a stream which enters the cove. There is also good anchorage in 2 fathoms with good holding ground in the middle of the bight on the SW side of Castle Rock. This anchorage is less affected by the ground swell making along the coast from Cape Newenham than the anchorage in Security Cove.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Juneau	Commander	
	17th CG District	(907) 463-2000
	Juneau, Alaska	

# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>



50' 40' 30'



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES  
ALASKA - WEST COAST

# KUSKOKWIM RIVER

## KUSKOKWIM BAY TO BETHEL

Mercator Projection  
Scale 1:100,000 at Lat 60°21'30"

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

For Symbols and Abbreviations see Chart No. 1

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

### TIDAL INFORMATION

PLACE	NAME	(LAT/LONG)	Height referred to datum of soundings (MLLW)		
			Mean Higher High Water	Mean High Water	Mean Low Water
			feet	feet	feet
	Popokamute	(60°07'N/162°30'W)	11.0	8.9	0.6
	Apokak Creek	(60°08'N/162°10'W)	12.0	9.9	0.5
	Bethel	(60°48'N/161°45'W)	3.7	2.8	0.3
	Helmick Point	(60°16'N/162°25'W)	10.2	8.3	0.6
	Lomavik	(60°33'N/162°18'W)	7.9	6.3	0.7

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Feb 2013)

### HEIGHTS

Heights in feet above Mean High Water.

### AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

### NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.  
Refer to charted regulation section numbers.

### SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 9 for important supplemental information.

### HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.739' southward and 8.225' westward to agree with this chart.

### AIDS TO NAVIGATION

Consult Office of the Commander, 17th Coast Guard District in Juneau, Alaska for supplemental information concerning aids to navigation.

### POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

### CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

### WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

### RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

### COLREGS, 80.1705 (see note A)

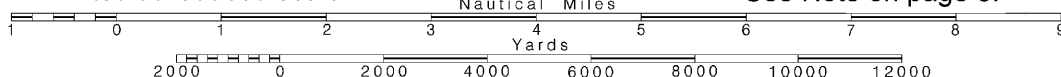
International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

Joins page 8

Printed at reduced scale.

SCALE 1:100,000

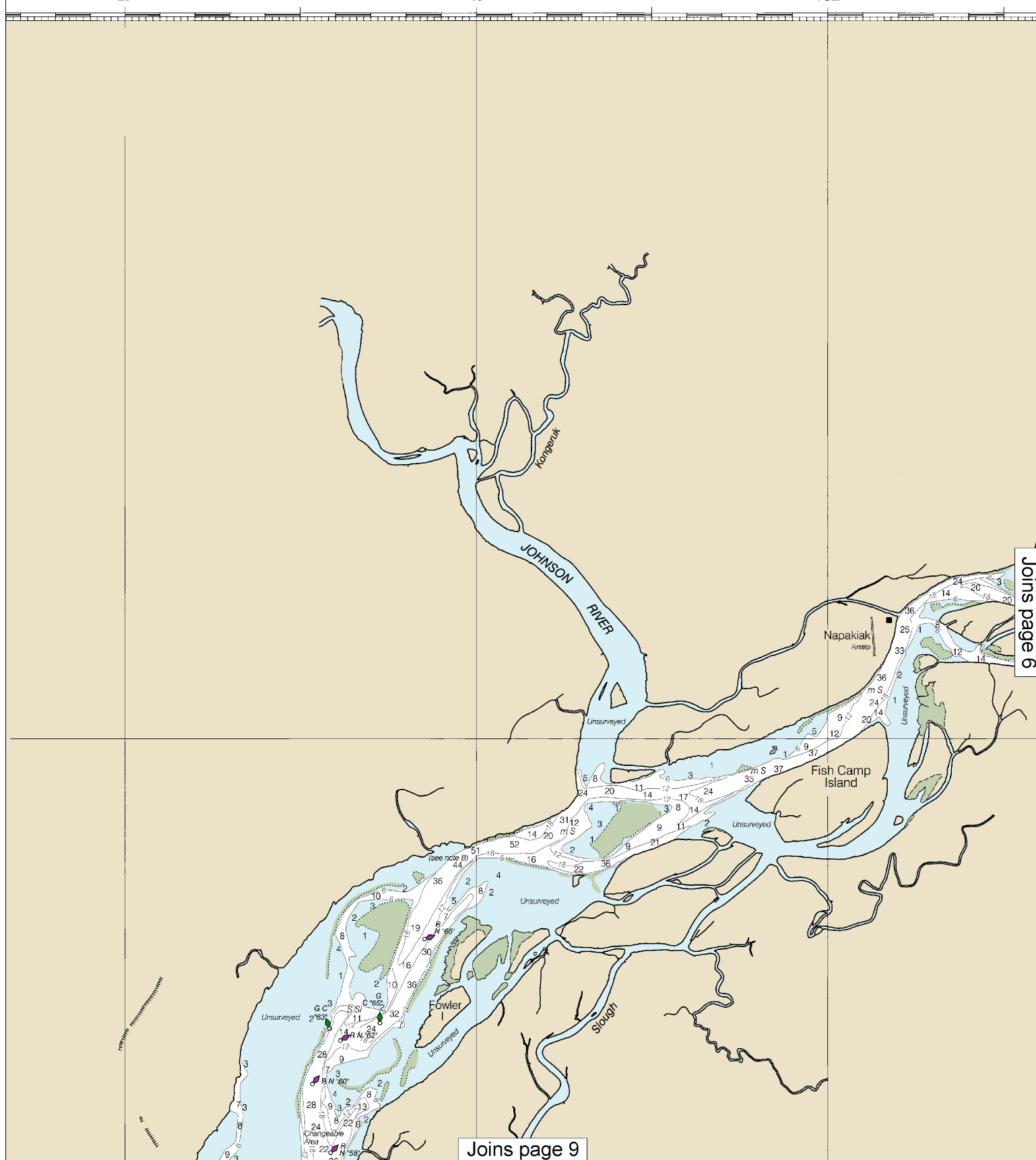
See Note on page 5.



20'

10'

162°



Joins page 6

Joins page 9

This BookletChart was reduced to 75% of the original chart scale.  
 The new scale is 1:133333. Barscales have also been reduced and  
 are accurate when used to measure distances in this BookletChart.

20'

10'

162°

VER  
HEL

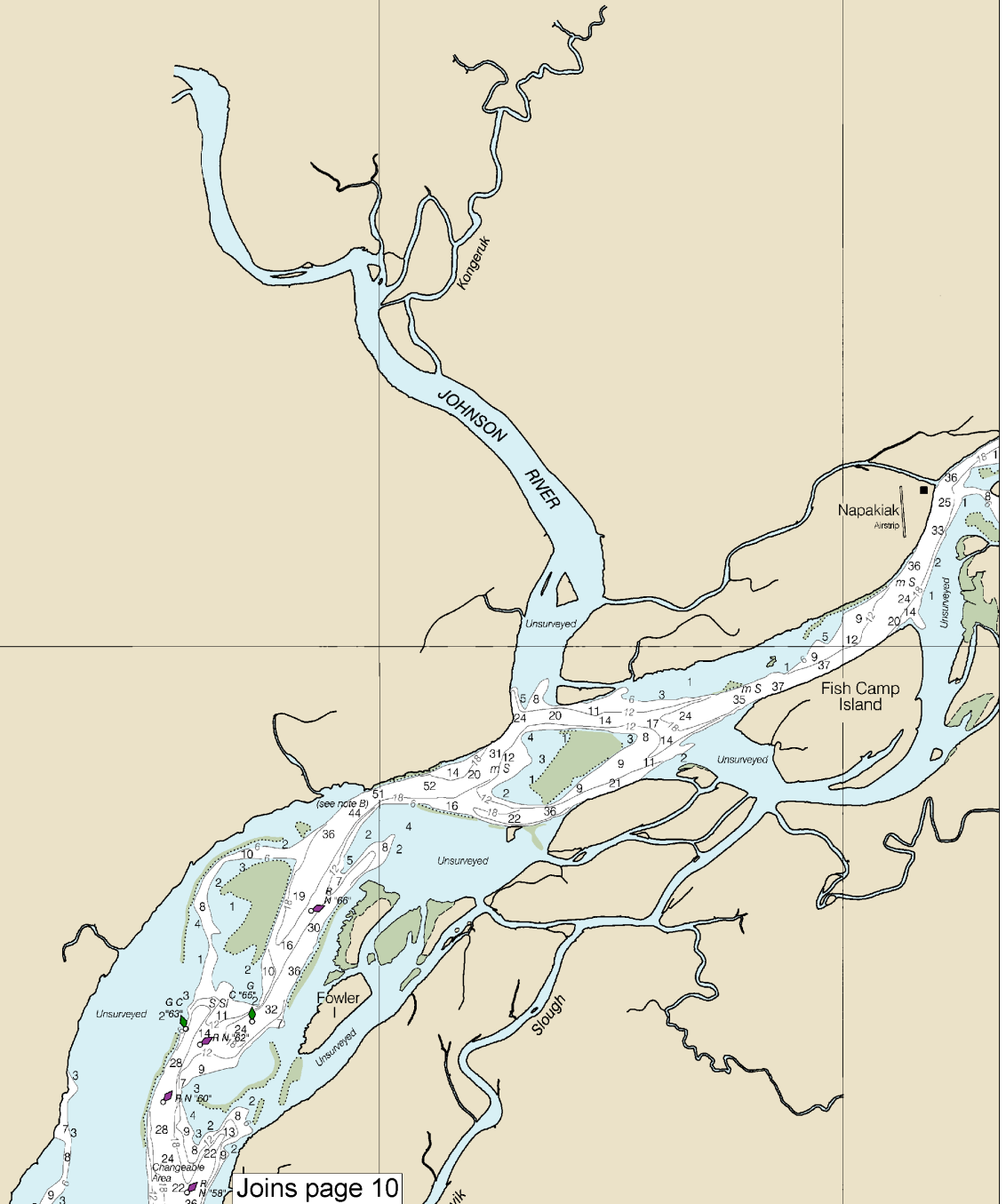
Joins page 5

(MLLW)
Mean Water
0.8
0.5
0.3
0.6
0.7

the water levels.  
is.noaa.gov.

st  
al

Johnson River  
Slough



Joins page 10

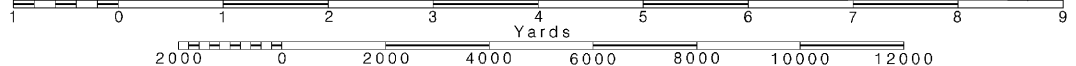
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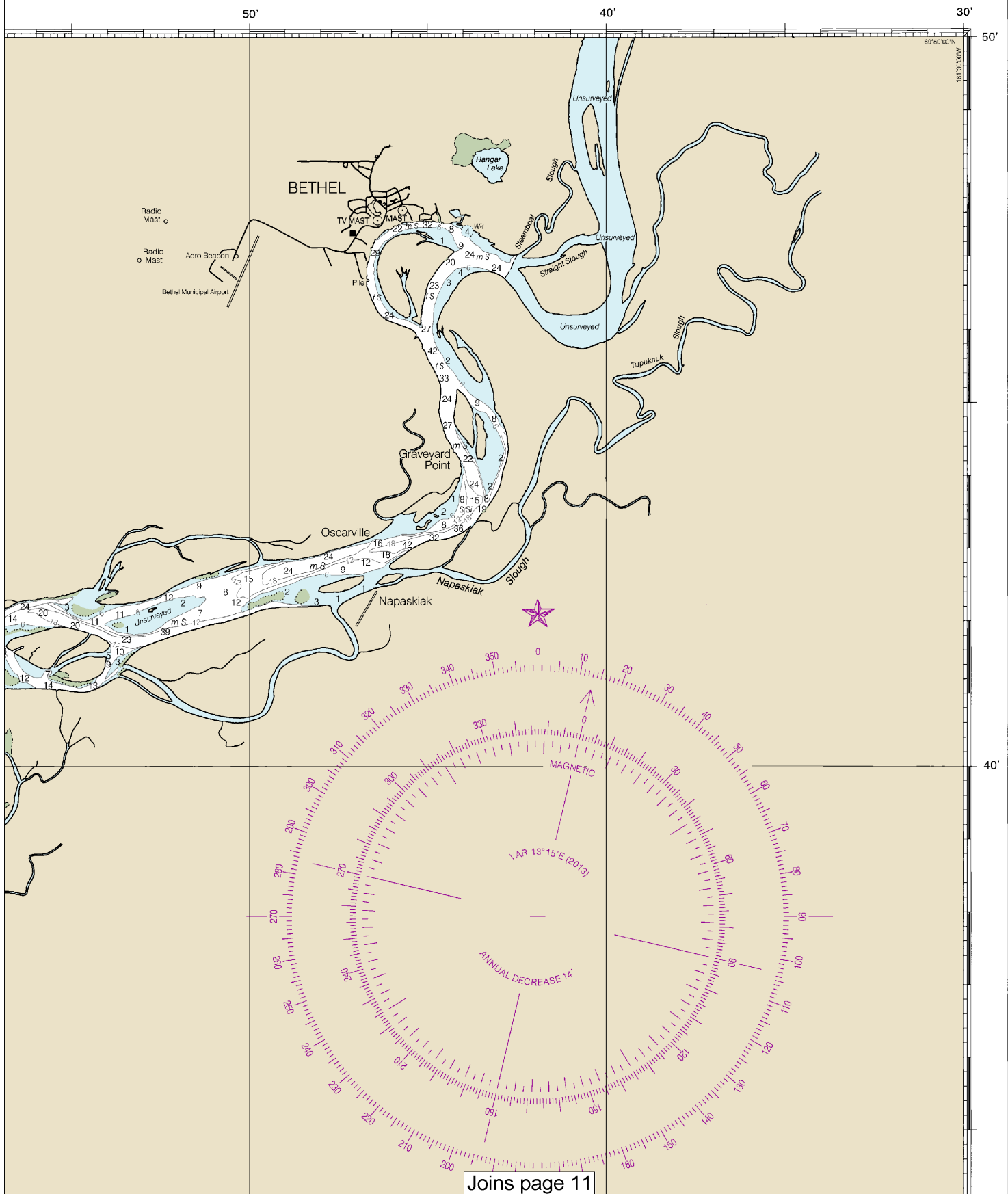
Note: Chart grid  
lines are aligned  
with true north.

Printed at reduced scale.

SCALE 1:100,000  
Nautical Miles

See Note on page 5.





Last Correction: 11/16/2016. Cleared through:  
 LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

navigation are not indicated on this chart. See  
Local Notice to Mariners.

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Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

COLREGS, 80.1705 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

Joins page 4

Engineer, Corps of Engineers in Anchorage,  
Alaska.  
Refer to charted regulation section numbers.

#### SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 9 for important  
supplemental information.

#### HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.739' southward and 8.225' westward to agree with this chart.

#### NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Bethel, AK WNG-675 162.550 MHz

#### CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

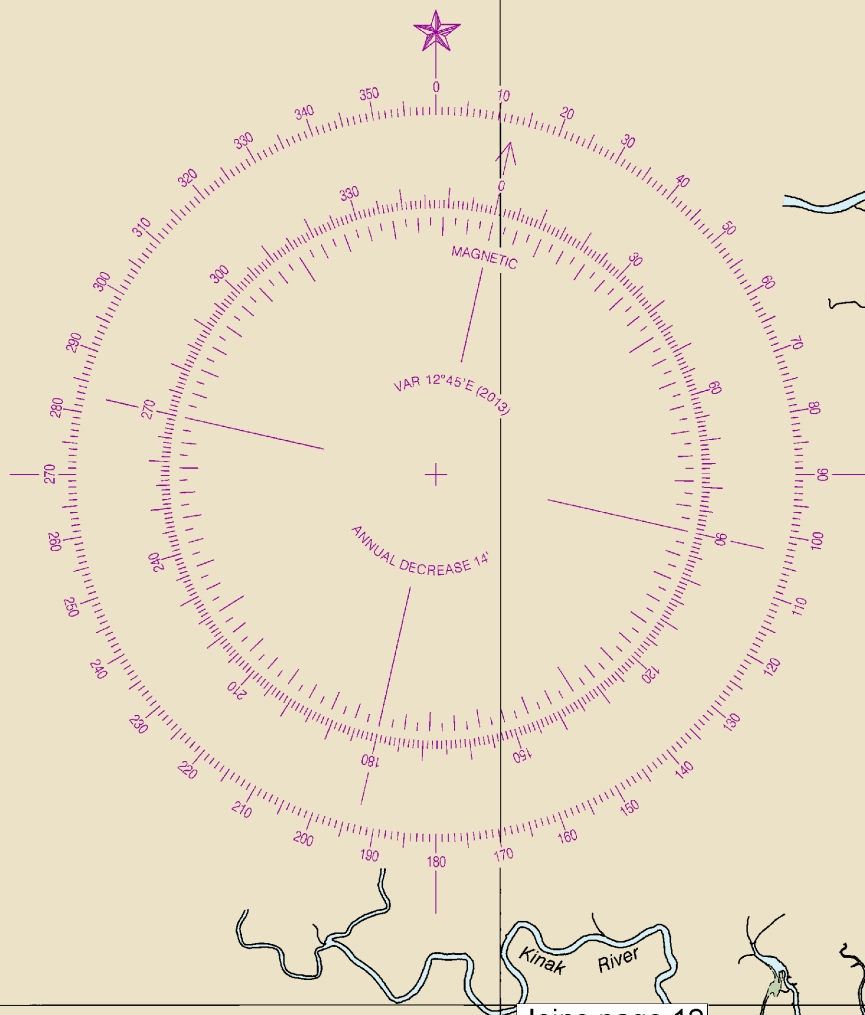
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙ (Accurate location) ○ (Approximate location)

30°

20°



KIALIK RIVER

Joins page 12

Unsurveyed

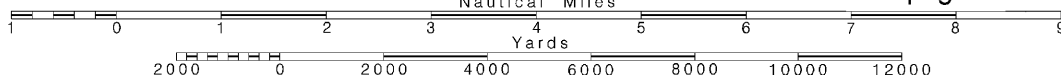
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Note: Chart grid  
lines are aligned  
with true north.

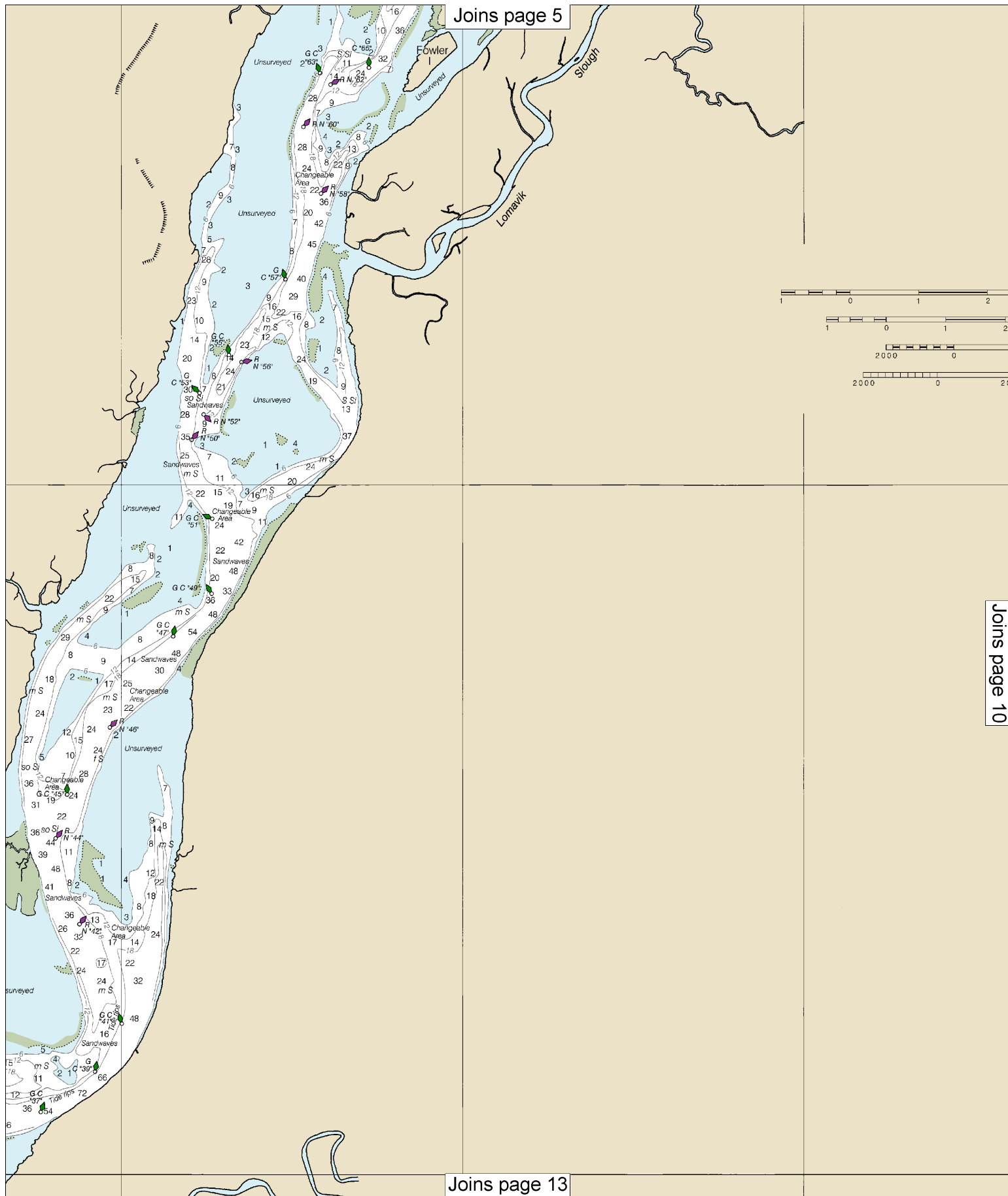
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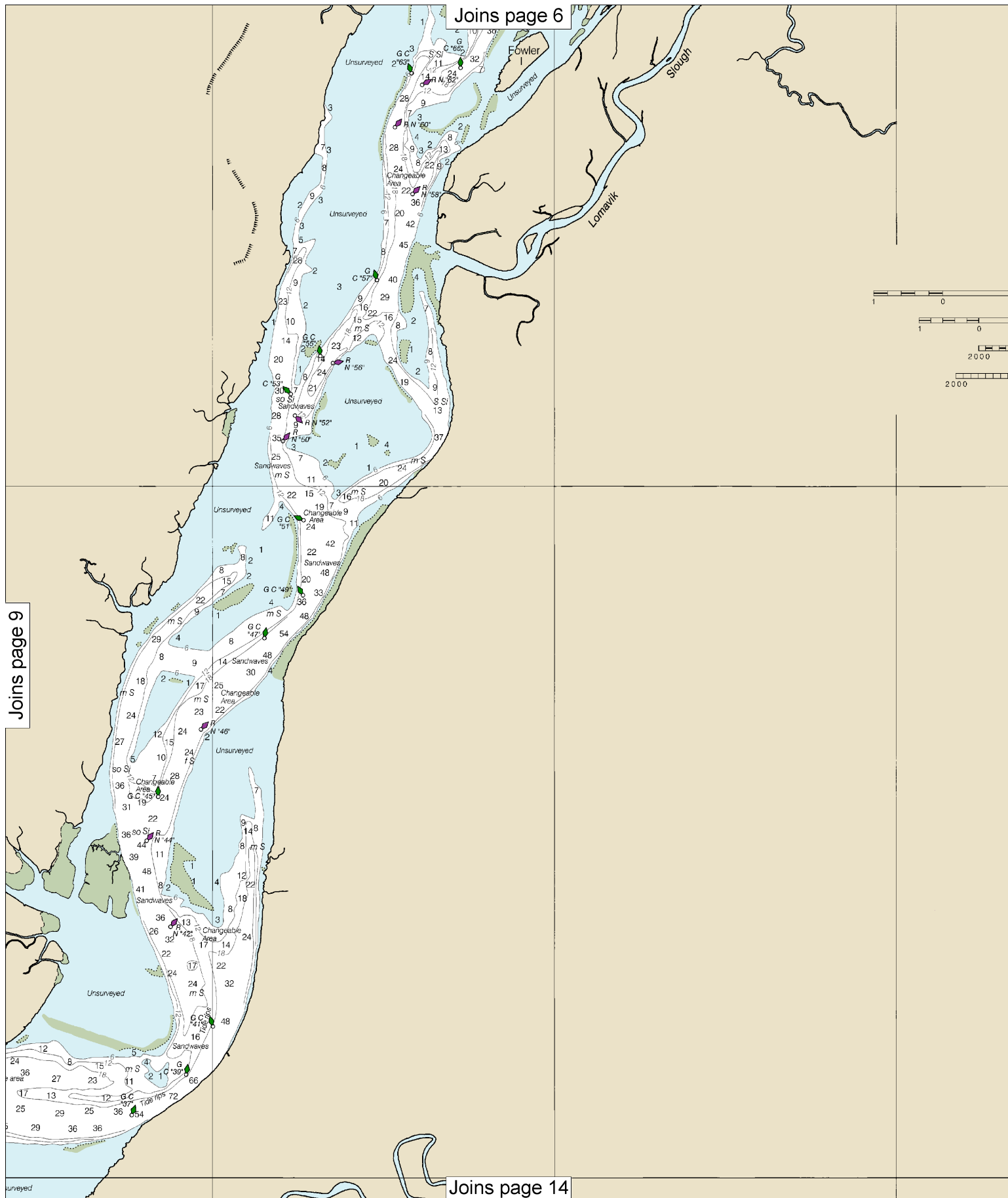
SCALE 1:100,000

See Note on page 5.









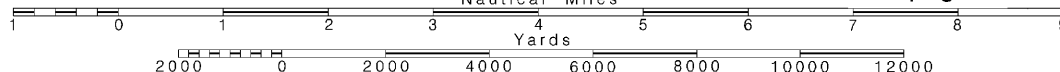
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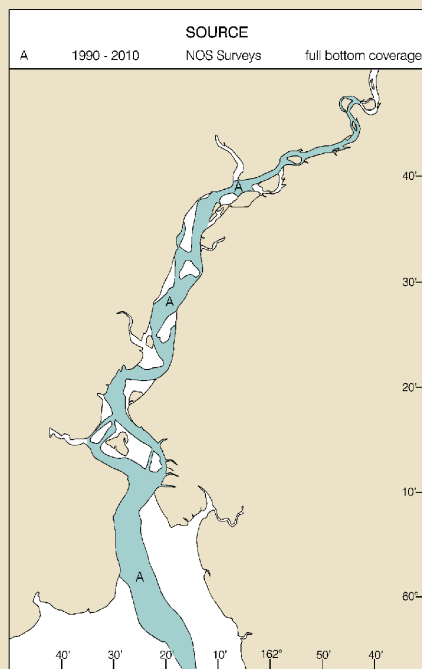
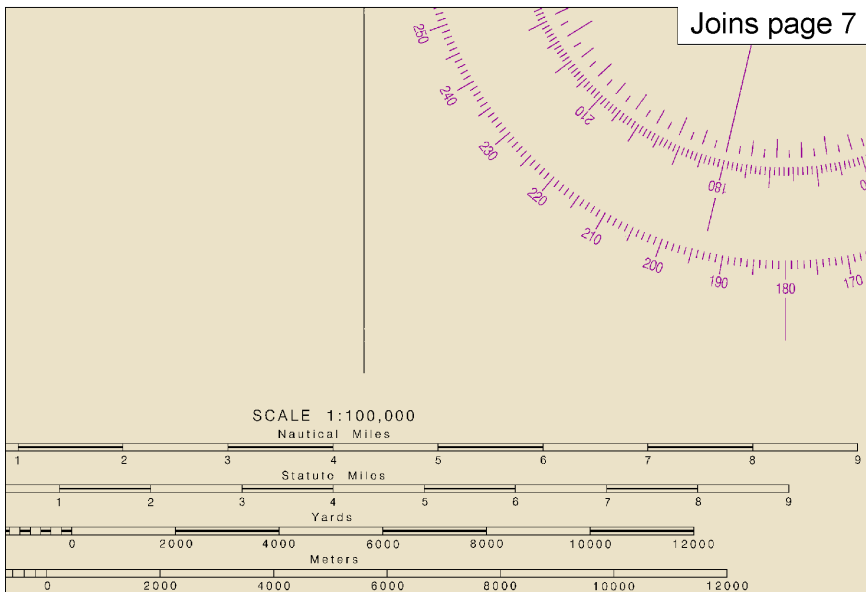
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:100,000  
Nautical Miles

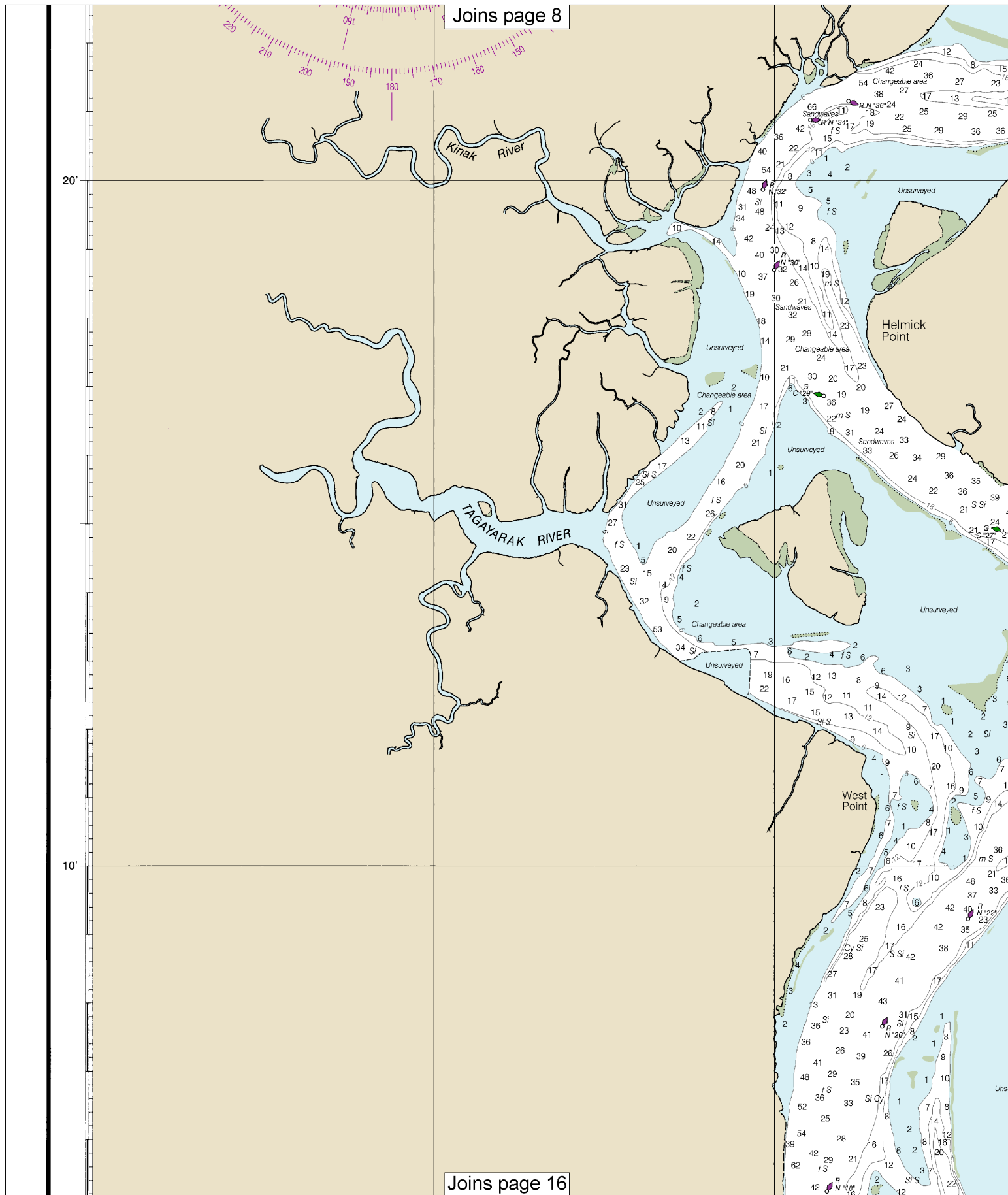
See Note on page 5.





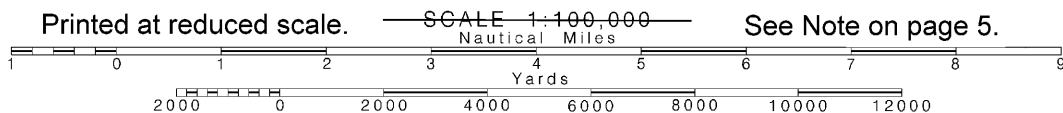
SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, *United States Coast Pilot*.



12

Note: Chart grid lines are aligned with true north.









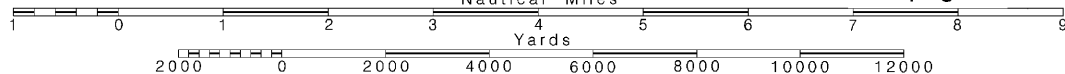
14

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:100,000

See Note on page 5.

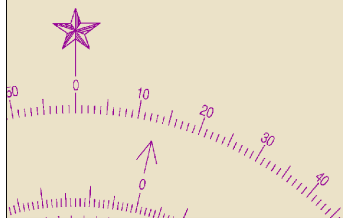


survey information that has been evaluated for  
banded in this diagram by date and type of s  
by the U.S. Army Corps of Engineers are periodically resurveyed and are  
not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

Joins page 11

20'

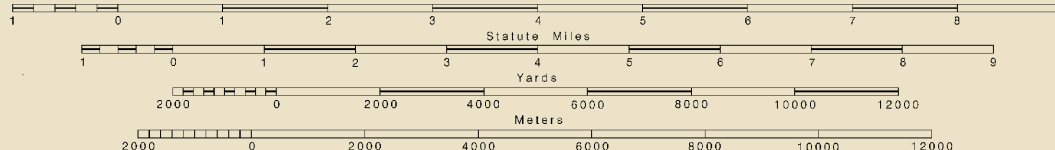
10'



Joins page 19

Joins page 12

SCALE 1:100,000  
Nautical Miles



FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

60°

50'

40'

30'

CONTINUED ON CHART 16300

KUSKOKWIM BA

3rd Ed., Apr. 2013

16304

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

Last Correction: 11/16/2016. Cleared through:  
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

SOUNDINGS IN FEET

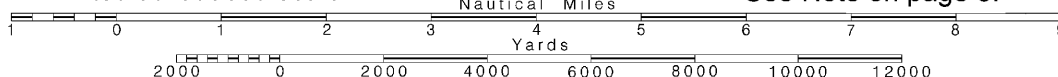
16

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

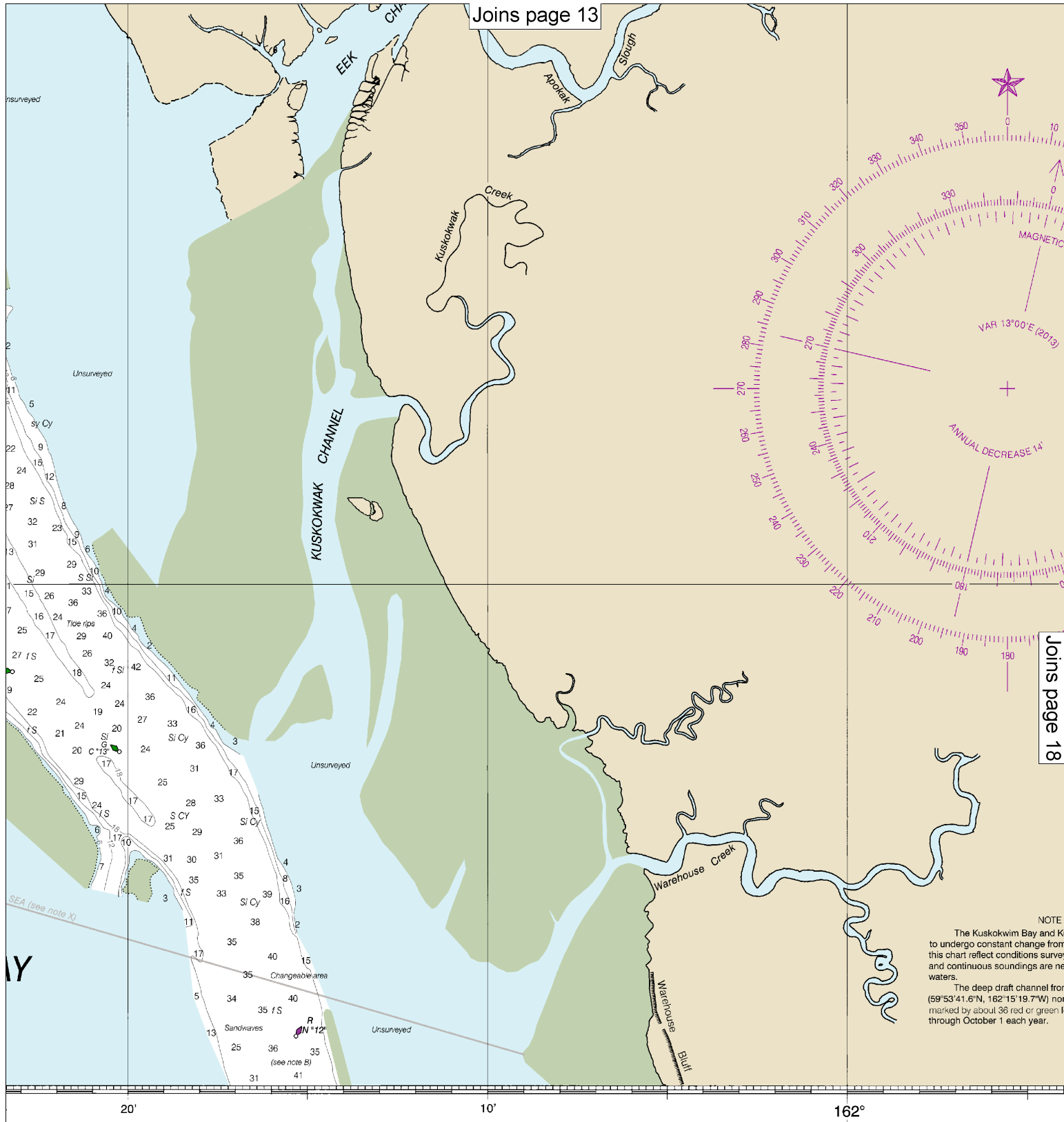
SCALE 1:100,000

See Note on page 5.





Joins page 13



Joins page 18

NOTE

The Kuskokwim Bay and K...  
to undergo constant change from...  
this chart reflect conditions survey...  
and continuous soundings are ne...  
waters.

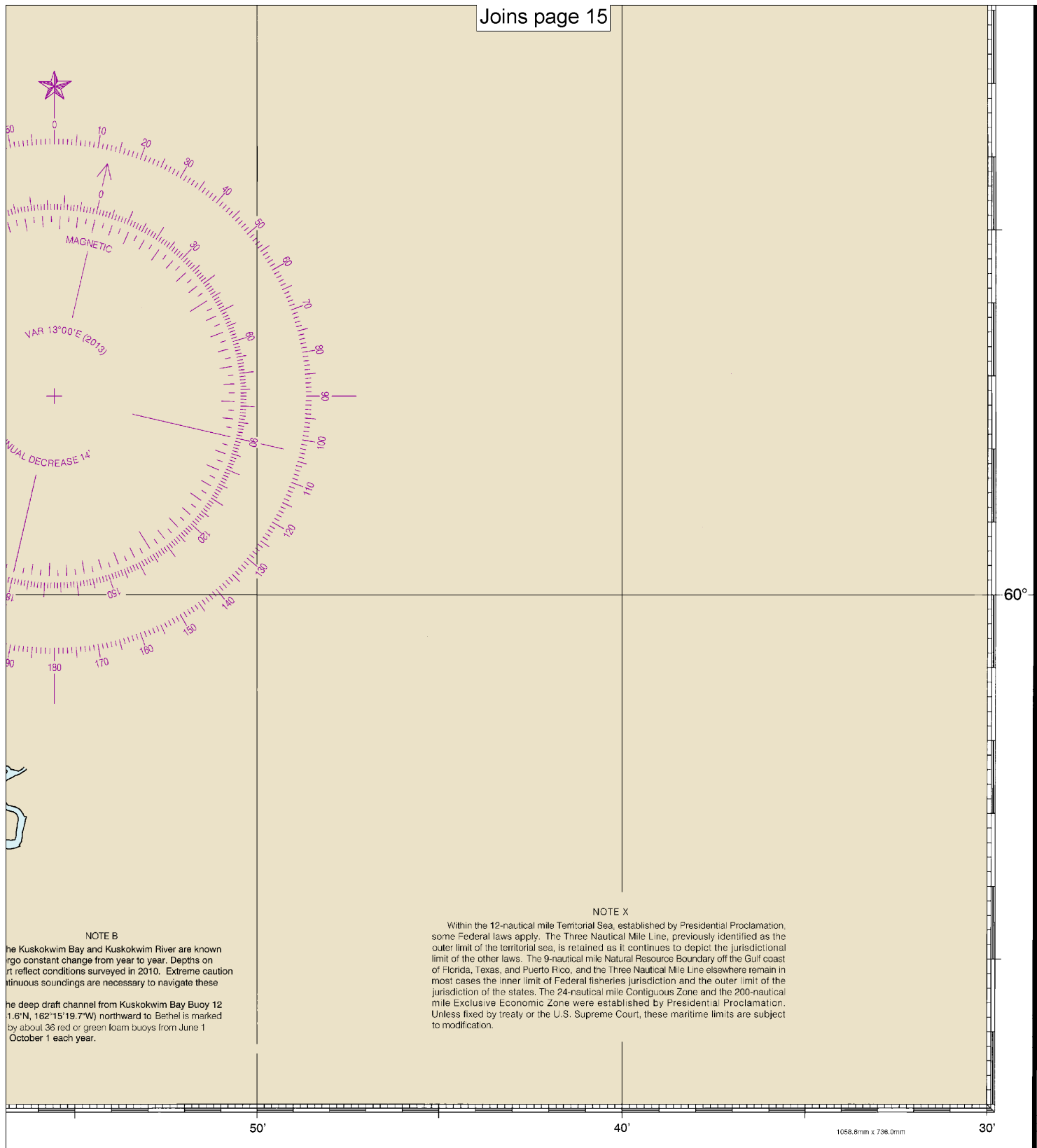
The deep draft channel from (59°53'41.6"N, 162°15'19.7"W) not marked by about 36 red or green lights through October 1 each year.

# ET

Published at Washington, D.C.  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY

a





NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

Kuskokwim Bay to Bethel  
SOUNDINGS IN FEET - SCALE 1:100,000

16304



EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.